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# Review of Palaearctic *Autalia* VII. A new species from Yunnan, China (Coleoptera: Staphylinidae: Aleocharinae)

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A b s t r a c t: *Autalia cornigera* nov.sp., the 17<sup>th</sup> species of the genus in the Palaearctic region, is described from Yunnan province, China. The habitus and the male primary and secondary sexual characters are illustrated.

K e y w o r d s: Coleoptera, Staphylinidae, Aleocharinae, *Autalia*, Palaearctic region, China, Yunnan, taxonomy, new species.

#### 1. Introduction

The genus *Autalia* LEACH 1819 was previously represented in the Palaearctic region by 16 species, four of them confined to the Western Palaearctic and ten to the Eastern Palaearctic region; two species, *A. rivularis* (GRAVENHORST 1802) and *A. puncticollis* SHARP 1864 have a trans-Palaearctic distribution (ASSING 2005). The latter had been known only from Europe (and from North America as an introduced species) until recently, when it was also recorded from Japan by KISHIMOTO (2002). Seven species have become known from mainland China (ASSING 1998, 2003, 2005).

Among material of Aleocharinae recently collected by Michael Schülke and David Wrase (both Berlin), an undescribed *Autalia* species from western Yunnan province was discovered, which raises the number of species known from the Palaearctic region to 17.

## 2. Material and methods

The morphological studies were carried out using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena) with a drawing tube. For the photographs a digital camera (Nikon Coolpix 995) was used.

Head length was measured from the anterior margin of the clypeus to the posterior margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra.

# 3. Autalia cornigera nov.sp. (Figs 1-8)

Type material: Holotype ♂: China: Yunnan [CH07-14A], Baoshan Pref., Gaoligong Shan, 33 km SE Tengchong, 2100-2200 m, 24°51'22"N, 98°45'36"E, decid. forest, litter, wood, fungi sifted, 4.VI.2007, M. Schülke / Holotypus ♂ *Autalia cornigera* sp. n. det. V. Assing 2007 (cAss). Paratypes: 1♂: same data as holotype (cSch); 1♂ [without elytra and hind wings]: China (Yunnan), Baoshan Pref., Gaoligong Shan, 33 km SE Tengchong, 24°51'22"N, 98°45'36"E, 2100-2200 m, prim. decid. forest, brook bank, litter, moss sifted, 31.V.2007, D. W. Wrase [14B] (cSch).

Description: 2.5-2.9 mm. Facies as in Fig. 1. Coloration: head and elytra reddish brown; pronotum reddish; abdomen with segments III-IV and apex (posterior 1/3 of segment VII and following) reddish, remainder brown; legs dark yellowish to reddish yellow; antennae basally reddish, apically gradually infuscated, apical antennomeres brown to dark brown

Head weakly transverse, widest across eyes, behind eyes narrowed; posterior angles obsolete; integument with variable fine, shallow and - especially in median dorsal area - sparse puncturation; microsculpture absent; eyes distinctly bulging and projecting from lateral contours of head, slightly more than half the length of postocular region in dorsal view (Fig. 2). Antennae (Fig. 3) slender, gradually incrassate apically, preapical antennomeres rather weakly transverse, less than 1.5 times as wide as long.

Pronotum approximately as wide as long and 0.85 times as wide as head; median furrow deep and distinct only in anterior half of pronotum, not reaching U-shaped furrow; U-shaped furrow pronounced, in the middle not interrupted by elevation; puncturation extremely fine and barely noticeable (Fig. 2).

Elytra approximately 1.7 times as wide and at suture 1.4 times as long as pronotum; humeral angles marked; puncturation extremely fine and sparse (Fig. 2). Hind wings fully developed.

Abdomen approximately 0.85 times as wide as elytra; microsculpture absent; basal impressions of tergites III-IV with median carina, but without lateral carinae, except for minute carina near paratergite, on either side of median carina smooth and shiny; posterior half of tergites III-IV with moderately fine and moderately dense puncturation; basal impression of tergite V with or without minute rudiment of median carina; puncturation of tergites V-VII much finer and sparser than that of tergites III-IV; posterior margin of tergite VII with pronounced palisade fringe.

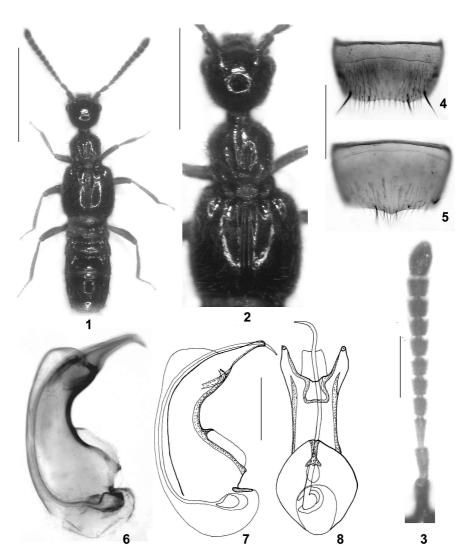
 $\delta$ : tergite and sternite VIII shaped as in Figs 4-5; median lobe of aedeagus with conspicuous deeply and broadly bifid ventral process and with moderately long flagellum (Figs 6-8).

○: unknown.

E t y m o l o g y: The name (Latin, adjective: with antlers) refers to the shape of the ventral process of the aedeagus (ventral view).

C o m p a r a t i v e n o t e s: The species is distinguished from all its congeners especially by the conspicuous morphology of the median lobe of the aedeagus. The only Palaeactic *Autalia* species with an apically bifid ventral process are *A. formosa* ASSING from Taiwan, *A. schillhammeri* ASSING from Ghuizou, and *A. rufula* SHARP from Japan. From these species, *A. cornigera* is additionally separated as follows:

from *A. rufula* by darker coloration, distinctly longer antennae with less transverse preapical antennomeres, distinctly more bulging eyes, a narrower pronotum (in *A. rufula* weakly transverse), and slightly longer legs;



**Figs 1-8**: *Autalia cornigera* nov.sp.: (1) habitus; (2) forebody; (3) antenna; (4) male tergite VIII; (5) male sternite VIII; (6-8) median lobe of aedeagus in lateral and in ventral view. Scale bars: 1: 1.0 mm; 2: 0.5 mm; 3-5: 0.2 mm; 6-8: 0.1 mm.

from *A. formosa* by paler coloration (especially of the base of the antenna, the pronotum, as well as of the base and apex of the abdomen) and by the distinctly finer puncturation of the abdomen;

from *A. schillhammeri* by much paler coloration (body of *A. schillhammeri* almost black), more bulging eyes, more slender antennae, a more slender pronotum, and a differently shaped male tergite VIII. From other species recorded from China, *A. cornigera* is separated as follows:

from A. schuelkei ASSING, A. imbecilla ASSING, A. limata ASSING, and A. yunnanica ASSING by much longer and broader elytra, fully developed hind wings, as well as by much larger and more bulging eyes (in addition to numerous other characters);

from A. smetanai PACE by much paler coloration, more slender antennae, and smaller eyes;

from the widespread *A. rivularis* (GRAVENHORST) by distinctly paler coloration, more slender antennae, smaller (but more bulging) eyes, a more slender pronotum, the distinctly finer and sparser puncturation of the abdomen, and the absence of lateral carinae in the anterior impressions of tergites III-V.

For illustrations of the sexual characters of the compared species see ASSING (1997, 1998, 1999, 2001, 2003, 2005).

Distribution and bionomics: The type locality is situated in the environs of Tengchong, western Yunnan province. The type specimens were sifted in a deciduous forest at an altitude of 2100-2200 m.

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## Zusammenfassung

*Autalia cornigera* nov.sp., die 17. Art der Gattung in der Paläarktis, wird aus der Provinz Yunnan, China, beschrieben. Der Habitus sowie die primären und sekundären männlichen Geschlechtsmerkmale werden abgebildet.

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